

SEQUENCE LISTING

<110> TAKAGI, MASARU
HIRATSU, KEIICHIROU

<120> GENE AND PEPTIDE FOR TRANSCRIPTIONAL REPRESSOR

<130> 081356-0219

<140> 10/500,361
<141> 2004-06-28

<150> PCT/JP02/13443
<151> 2002-12-24

<150> JP 2001-395487
<151> 2001-12-26

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<150> JP 2002-160671
<151> 2002-05-31

<160> 136

<170> PatentIn Ver. 3.3

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 35 40 45
 Cys Ser Phe Cys Lys Arg Glu Phe Arg Ser Ala Gln Ala Leu Gly Gly
 50 55 60
 His Met Asn Val His Arg Arg Asp Arg Ala Arg Leu Arg Leu Gln Gln
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 Ser Pro Ser Ser Ser Ser Thr Pro Ser Pro Pro Tyr Pro Asn Pro Asn
 85 90 95
 Tyr Ser Tyr Ser Thr Met Ala Asn Ser Pro Pro Pro His His Ser Pro
 100 105 110
 Leu Thr Leu Phe Pro Thr Leu Ser Pro Pro Ser Ser Pro Arg Tyr Arg
 115 120 125
 Ala Gly Leu Ile Arg Ser Leu Ser Pro Lys Ser Lys His Thr Pro Glu
 130 135 140
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 145 150 155 160
 Ala Thr Arg Phe Thr Ser Lys Asp Ala Cys Lys Ile Leu Arg Asn Asp
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<213> Cauliflower mosaic virus

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<210> 48
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 <213> Nicotiana tabacum

<400> 49
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Tyr Asp Gly Lys Arg Asp Ile Ala Leu Ala Leu Asn Leu Ala Pro Pro
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Met Glu Phe
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 Ser Gly Ser Leu Gly Glu Val Asp Phe Cys Pro Val Pro Gln Ala Glu
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 cct gat tcc att gtt gaa gat gac tat act gat gat gag att gat gtt 144
 Pro Asp Ser Ile Val Glu Asp Asp Tyr Thr Asp Asp Glu Ile Asp Val
 35 40 45
 gat gaa ttg gag agg agg atg tgg aga gac aaa atg cgg ctt aaa cgt 192
 Asp Glu Leu Glu Arg Arg Met Trp Arg Asp Lys Met Arg Leu Lys Arg
 50 55 60
 ctc aag gag cag gat aag ggt aaa gaa ggt gtt gat gct gct aaa cag 240
 Leu Lys Glu Gln Asp Lys Gly Lys Glu Gly Val Asp Ala Ala Lys Gln
 65 70 75 80
 agg cag tct caa gag caa gct agg agg aag aaa atg tct aga gct caa 288
 Arg Gln Ser Gln Glu Gln Ala Arg Arg Lys Lys Met Ser Arg Ala Gln
 85 90 95
 gat ggg atc ttg aag tat atg ttg aag atg atg gaa gtt tgt aaa gct 336
 Asp Gly Ile Leu Lys Tyr Met Leu Lys Met Met Glu Val Cys Lys Ala
 100 105 110
 caa ggc ttt gtt tat ggg att att ccg gag aat ggg aag cct gtg act 384
 Gln Gly Phe Val Tyr Gly Ile Ile Pro Glu Asn Gly Lys Pro Val Thr
 115 120 125

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cat gat ttg aag aag gcg tgg aaa gtc ggc gtt ttg act gcg gtt atc His Asp Leu Lys Lys Ala Trp Lys Val Gly Val Leu Thr Ala Val Ile 245 250 255	768
aag cat atg ttt cct gat att gct aag atc cgt aag ctc gtg agg caa Lys His Met Phe Pro Asp Ile Ala Lys Ile Arg Lys Leu Val Arg Gln 260 265 270	816
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gtc cca gca gga aac tcg gaa ttc atg aga aag aga aag cca aac aga	1152
Val Pro Ala Gly Asn Ser Glu Phe Met Arg Lys Arg Lys Pro Asn Arg	
370 375 380	
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Asp Leu Asn Thr Ile Met Asp Arg Thr Val Phe Thr Cys Glu Asn Leu	
385 390 395 400	
ggg tgt gcg cac agc gaa atc agc cgg gga ttt ctg gat agg aat tcg	1248
Gly Cys Ala His Ser Glu Ile Ser Arg Gly Phe Leu Asp Arg Asn Ser	
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aga gac aac cat caa ctg gca tgt cca cat cga gac agt cgc tta ccg	1296
Arg Asp Asn His Gln Leu Ala Cys Pro His Arg Asp Ser Arg Leu Pro	
420 425 430	
tat gga gca gca cca tcc agg ttt cat gtc aat gaa gtt aag cct gta	1344
Tyr Gly Ala Ala Pro Ser Arg Phe His Val Asn Glu Val Lys Pro Val	
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Val Gly Phe Pro Gln Pro Arg Pro Val Asn Ser Val Ala Gln Pro Ile	
450 455 460	
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465 470 475 480	
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Leu Met Ser Met Tyr Asp Arg Asn Val Gln Ser Asn Gln Thr Ser Met	
485 490 495	
gtc atg gaa aat caa agc gtg tca ctg ctt caa ccc aca gtc cat aac	1536
Val Met Glu Asn Gln Ser Val Ser Leu Leu Gln Pro Thr Val His Asn	
500 505 510	
cat caa gaa cat ctc cag ttc cca gga aac atg gtg gaa gga agt ttc	1584
His Gln Glu His Leu Gln Phe Pro Gly Asn Met Val Glu Gly Ser Phe	
515 520 525	
ttt gaa gac ttg aac atc cca aac aga gca aac aac aac aac agc agc	1632
Phe Glu Asp Leu Asn Ile Pro Asn Arg Ala Asn Asn Asn Asn Ser Ser	
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aac aat caa acg ttt ttt caa ggg aac aac aac aac aac aat gtg ttt	1680
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Lys Phe Asp Thr Ala Asp His Asn Asn Phe Glu Ala Ala His Asn Asn	
565 570 575	

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 Pro Phe Asp Met Ala Ser Phe Asp Tyr Arg Asp Asp Met Ser Met Pro
 595 600 605

gga gta gta gga acg atg gat gga atg cag cag aag cag caa gat gta 1872
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gtg aaa aca gat gga gtt aag gag gtt cac tac aga ggt gta agg aag 96
 Val Lys Thr Asp Gly Val Lys Glu Val His Tyr Arg Gly Val Arg Lys
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agg cca tgg ggt cgg tat gca gct gaa atc cgt gac ccg ggt aag aag 144
 Arg Pro Trp Gly Arg Tyr Ala Ala Glu Ile Arg Asp Pro Gly Lys Lys
 35 40 45

agt cgg gtc tgg tta ggt act ttc gac acg gcg gaa gag gcg gct aag 192
 Ser Arg Val Trp Leu Gly Thr Phe Asp Thr Ala Glu Glu Ala Ala Lys
 50 55 60

gcg tac gac acc gcc gct cga gag ttt cgt gga ccc aaa gca aaa act 240
 Ala Tyr Asp Thr Ala Ala Arg Glu Phe Arg Gly Pro Lys Ala Lys Thr
 65 70 75 80

aac ttc cct tca ccg acg gag aat cag agc cca agt cac agc agc acc 288
 Asn Phe Pro Ser Pro Thr Glu Asn Gln Ser Pro Ser His Ser Ser Thr
 85 90 95

gtg gag tcc tct agt gga gag aat ggt gtt cac gcg ccg cct cat gcg 336
 Val Glu Ser Ser Ser Gly Glu Asn Gly Val His Ala Pro Pro His Ala
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ccg ctc gag ctg gat ctc acg cgc cgt ctt ggc tcc gtt gct gca gat	384
Pro Leu Glu Leu Asp Leu Thr Arg Arg Leu Gly Ser Val Ala Ala Asp	
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ggc ggt gac aac tgt cgc cgt tct ggg gaa gtt ggg tac ccg att ttc	432
Gly Gly Asp Asn Cys Arg Arg Ser Gly Glu Val Gly Tyr Pro Ile Phe	
130 135 140	
cac cag cag ccg act gtg gcg gtt ctg cca aat ggc cag ccg gtt ctg	480
His Gln Gln Pro Thr Val Ala Val Leu Pro Asn Gly Gln Pro Val Leu	
145 150 155 160	
ctc ttt gat tct ttg tgg cgg gcg gga gtt gtt aac agg cct cag cct	528
Leu Phe Asp Ser Leu Trp Arg Ala Gly Val Val Asn Arg Pro Gln Pro	
165 170 175	
tac cat gta acg ccg atg ggg ttt aac ggc gtt aac gcc gga gtg ggt	576
Tyr His Val Thr Pro Met Gly Phe Asn Gly Val Asn Ala Gly Val Gly	
180 185 190	
cct act gtg tcg gac tcg tcc tct gca gtg gaa gag aac caa tat gat	624
Pro Thr Val Ser Asp Ser Ser Ser Ala Val Glu Glu Asn Gln Tyr Asp	
195 200 205	
ggg aaa aga gga att gat ctt gat ctt aac ctt gct cca cct atg gaa	672
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Glu Ser Leu Met Pro Pro Gly Phe Arg Phe His Pro Thr Asp Glu Glu	
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Leu Ile Thr Tyr Tyr Leu Leu Lys Lys Val Leu Asp Ser Asn Phe Ser	
35 40 45	

tgt gcc gcc att tct caa gtt gat ctc aac aag tct gag cct tgg gag	192
Cys Ala Ala Ile Ser Gln Val Asp Leu Asn Lys Ser Glu Pro Trp Glu	
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ctt cct gag aaa gcg aaa atg ggg gag aag gag tgg tac ttc ttc aca	240
Leu Pro Glu Lys Ala Lys Met Gly Glu Lys Glu Trp Tyr Phe Phe Thr	
65 70 75 80	
cta aga gac cgt aaa tac cca acg gga ctg aga acg aac aga gca aca	288
Leu Arg Asp Arg Lys Tyr Pro Thr Gly Leu Arg Thr Asn Arg Ala Thr	
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gaa gct ggt tac tgg aaa gcc act ggt aaa gac aga gag atc aaa agc	336
Glu Ala Gly Tyr Trp Lys Ala Thr Gly Lys Asp Arg Glu Ile Lys Ser	
100 105 110	
tca aag aca aaa tca ctt ctc ggg atg aag aaa act ctt gtc ttt tac	384
Ser Lys Thr Lys Ser Leu Leu Gly Met Lys Lys Thr Leu Val Phe Tyr	
115 120 125	
aaa ggc aga gct cct aaa gga gag aag agt tgt tgg gtc atg cat gag	432
Lys Gly Arg Ala Pro Lys Gly Glu Lys Ser Cys Trp Val Met His Glu	
130 135 140	
tat cgc ctt gac ggc aaa ttc tct tac cat tac att tcc tcc tcc gct	480
Tyr Arg Leu Asp Gly Lys Phe Ser Tyr His Tyr Ile Ser Ser Ser Ala	
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Lys Asp Glu Trp Val Leu Cys Lys Val Cys Leu Lys Ser Gly Val Val	
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agt aga gag acg aac ttg atc tct tct tct tct tct ggc gtc acc	576
Ser Arg Glu Thr Asn Leu Ile Ser Ser Ser Ser Ser Ser Ala Val Thr	
180 185 190	
gga gag ttc tcc tct gcc ggt tct gca att gct ccg atc atc aat acc	624
Gly Glu Phe Ser Ser Ala Gly Ser Ala Ile Ala Pro Ile Ile Asn Thr	
195 200 205	
ttt gcg acg gag cac gtg tcc tgt ttc tcc aat aac tct gct gct cat	672
Phe Ala Thr Glu His Val Ser Cys Phe Ser Asn Asn Ser Ala Ala His	
210 215 220	
acc gat gcg agc ttt cat aca ttc ctt ccc gct cca ccg ccg tca ctg	720
Thr Asp Ala Ser Phe His Thr Phe Leu Pro Ala Pro Pro Pro Ser Leu	
225 230 235 240	
ccc cca cgt cag cca cgt cac gtc ggt gat ggc gtg gcg ttt ggt cag	768
Pro Pro Arg Gln Pro Arg His Val Gly Asp Gly Val Ala Phe Gly Gln	
245 250 255	
ttt ctg gat ttg gga tca tcg gga cag att gat ttc gat gca gca gca	816
Phe Leu Asp Leu Gly Ser Ser Gly Gln Ile Asp Phe Asp Ala Ala Ala	
260 265 270	


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<210> 55
<211> 60
<212> DNA
<213> Arabidopsis thaliana
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<400> 55
ttaagcgaaa cccaaacgga gttctagatc cagatcgaga gtaaagggcc acacactcac 60

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<210> 56
<211> 26
<212> DNA
<213> Arabidopsis thaliana

<400> 56
gggatggatg ttgatgtgtt taacgg
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<210> 57
<211> 34
<212> DNA
<213> Arabidopsis thaliana
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<400> 57
cctggatcta gaactccggt tgggtttcgc ttaa 34

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<210> 58
<211> 39
<212> DNA
<213> Arabidopsis thaliana
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<400> 58
tcgacttaag cgaaacccaa acggagtctt agatccagg 39

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<210> 59
<211> 37
<212> DNA
<213> Arabidopsis thaliana
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<400> 59
ccttgatctt aaccttgctc cacctatgga attttga 37

<210> 60
 <211> 42
 <212> DNA
 <213> Arabidopsis thaliana

<400> 60
 tcgactcaaa attccatagg tggagcaagg ttaagatcaa gg

42

<210> 61
 <211> 30
 <212> PRT
 <213> Arabidopsis thaliana

<400> 61
 Asn Asp Glu Ile Ile Ser Leu Glu Leu Glu Ile Gly Leu Ile Asn Glu
 1 5 10 15

Ser Glu Gln Asp Leu Asp Leu Glu Leu Arg Leu Gly Phe Ala
 20 25 30

<210> 62
 <211> 35
 <212> DNA
 <213> Arabidopsis thaliana

<400> 62
 aaaatggagg gtctgtccaa agggctgcga aaagg

35

<210> 63
 <211> 34
 <212> DNA
 <213> Arabidopsis thaliana

<400> 63
 atcaaatttc acagtctctc catcgaaaag actc

34

<210> 64
 <211> 40
 <212> DNA
 <213> Arabidopsis thaliana

<400> 64
 ctggatctgg atctagaact ccgtttgggt ttcgcttaag

40

<210> 65
 <211> 40
 <212> DNA
 <213> Arabidopsis thaliana

<400> 65
 cttaagcgaa acccaaacgg agttctagat ccagatccag

40

<210> 66
 <211> 747
 <212> DNA
 <213> Arabidopsis thaliana

<220>
 <221> CDS
 <222> (1) .. (747)

<400> 66
 atg gag ggt tcg tcc aaa ggg ctg cga aaa ggt gct tgg act act gaa 48
 Met Glu Gly Ser Ser Lys Gly Leu Arg Lys Gly Ala Trp Thr Thr Glu
 1 5 10 15

gaa gat agt ctc ttg aga cag tgc att aat aag tat gga gaa ggc aaa 96
 Glu Asp Ser Leu Leu Arg Gln Cys Ile Asn Lys Tyr Gly Glu Gly Lys
 20 25 30

tgg cac caa gtt cct gta aga gct ggg cta aac cgg tgc agg aaa agt 144
 Trp His Gln Val Pro Val Arg Ala Gly Leu Asn Arg Cys Arg Lys Ser
 35 40 45

tgt aga tta aga tgg ttg aac tat ttg aag cca agt atc aag aga gga 192
 Cys Arg Leu Arg Trp Leu Asn Tyr Leu Lys Pro Ser Ile Lys Arg Gly
 50 55 60

aaa ctt agc tct gat gaa gtc gat ctt ctt ctt cgc ctt cat agg ctt 240
 Lys Leu Ser Ser Asp Glu Val Asp Leu Leu Leu Arg Leu His Arg Leu
 65 70 75 80

cta ggg aat agg tgg tct tta att gct gga aga tta cct ggt cgg acc 288
 Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro Gly Arg Thr
 85 90 95

gca aat gac gtc aag aat tac tgg aac act cat ctg agt aag aaa cat 336
 Ala Asn Asp Val Lys Asn Tyr Trp Asn Thr His Leu Ser Lys Lys His
 100 105 110

gaa ccg tgt tgt aag ata aag atg aaa aag aga gac att acg ccc att 384
 Glu Pro Cys Cys Lys Ile Lys Met Lys Lys Arg Asp Ile Thr Pro Ile
 115 120 125

cct aca aca ccg gca cta aaa aac aat gtt tat aag cct cga cct cga 432
 Pro Thr Thr Pro Ala Leu Lys Asn Asn Val Tyr Lys Pro Arg Pro Arg
 130 135 140

tcc ttc aca gtt aac aac gac tgc aac cat ctc aat gcc cca cca aaa 480
 Ser Phe Thr Val Asn Asn Asp Cys Asn His Leu Asn Ala Pro Pro Lys
 145 150 155 160

gtt gac gtt aat cct cca tgc ctt gga ctt aac atc aat aat gtt tgt 528
 Val Asp Val Asn Pro Pro Cys Leu Gly Leu Asn Ile Asn Asn Val Cys
 165 170 175

gac aat agt atc ata tac aac aaa gat aag aag aaa gac caa cta gtg 576
 Asp Asn Ser Ile Ile Tyr Asn Lys Asp Lys Lys Lys Asp Gln Leu Val
 180 185 190

aat aat ttg att gat gga gat aat atg tgg tta gag aaa ttc cta gag 624
 Asn Asn Leu Ile Asp Gly Asp Asn Met Trp Leu Glu Lys Phe Leu Glu
 195 200 205

gaa agc caa gag gta gat att ttg gtt cct gaa gcg acg aca aca gaa 672
 Glu Ser Gln Glu Val Asp Ile Leu Val Pro Glu Ala Thr Thr Thr Glu
 210 215 220

aag ggg gac acc ttg gct ttt gac gtt gat caa ctt tgg agt ctt ttc 720
 Lys Gly Asp Thr Leu Ala Phe Asp Val Asp Gln Leu Trp Ser Leu Phe
 225 230 235 240

gat gga gag act gtg aaa ttt gat tag 747
 Asp Gly Glu Thr Val Lys Phe Asp
 245

<210> 67

<211> 34

<212> DNA

<213> Arabidopsis thaliana

<400> 67

aaaatgagaa tgacaagaga tggaaaagaa catg 34

<210> 68

<211> 34

<212> DNA

<213> Arabidopsis thaliana

<400> 68

aaggcaatac ccattagtaa aatccatcat agtg 34

<210> 69

<211> 660

<212> DNA

<213> Arabidopsis thaliana

<220>

<221> CDS

<222> (1) .. (660)

<400> 69

atg aga atg aca aga gat gga aaa gaa cat gaa tac aag aaa ggt tta 48
 Met Arg Met Thr Arg Asp Gly Lys Glu His Glu Tyr Lys Lys Gly Leu
 1 5 10 15

tgg aca gtt gaa gaa gac aag atc ctc atg gat tat gtc cga act cat 96
 Trp Thr Val Glu Glu Asp Lys Ile Leu Met Asp Tyr Val Arg Thr His
 20 25 30

ggc cag ggc cac tgg aac cgc atc gcc aag aaa act ggg ctc aag aga	144
Gly Gln Gly His Trp Asn Arg Ile Ala Lys Lys Thr Gly Leu Lys Arg	
35 40 45	
tgt ggg aaa agc tgt agg ttg aga tgg atg aac tac tta agc cct aat	192
Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Ser Pro Asn	
50 55 60	
gtt aac aga ggc aat ttt act gac caa gaa gaa gat ctc atc atc aga	240
Val Asn Arg Gly Asn Phe Thr Asp Gln Glu Glu Asp Leu Ile Ile Arg	
65 70 75 80	
ctc cac aag ctc ctc ggc aac aga tgg tgc ttg ata gcg aaa aga gtt	288
Leu His Lys Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Lys Arg Val	
85 90 95	
ccg gga aga aca gac aac caa gta aag aat tac tgg aac aca cat ctc	336
Pro Gly Arg Thr Asp Asn Gln Val Lys Asn Tyr Trp Asn Thr His Leu	
100 105 110	
agc aag aaa ctt ggt ctc gga gat cat tca act gcc gtc aaa gcc gca	384
Ser Lys Lys Leu Gly Leu Gly Asp His Ser Thr Ala Val Lys Ala Ala	
115 120 125	
tgc ggt gta gag tct cca ccg tct atg gcc ctt ata acc aca acg tcc	432
Cys Gly Val Glu Ser Pro Pro Ser Met Ala Leu Ile Thr Thr Thr Ser	
130 135 140	
tcc tct cat caa gag atc tcc ggt gga aaa aat tca act cta agg ttc	480
Ser Ser His Gln Glu Ile Ser Gly Gly Lys Asn Ser Thr Leu Arg Phe	
145 150 155 160	
gac act tta gtt gac gaa tcc aaa ctc aaa cca aaa tcc aaa cta gtc	528
Asp Thr Leu Val Asp Glu Ser Lys Leu Lys Pro Lys Ser Lys Leu Val	
165 170 175	
cac gca aca cca act gac gta gaa gtt gca gct acg gtt cca aat ctg	576
His Ala Thr Pro Thr Asp Val Glu Val Ala Ala Thr Val Pro Asn Leu	
180 185 190	
ttc gat acc ttt tgg gtt ctt gaa gac gac ttc gag ctt agt tca ctc	624
Phe Asp Thr Phe Trp Val Leu Glu Asp Asp Phe Glu Leu Ser Ser Leu	
195 200 205	
act atg atg gat ttt act aat ggg tat tgc ctt tga	660
Thr Met Met Asp Phe Thr Asn Gly Tyr Cys Leu	
210 215	

<210> 70

<211> 24

<212> DNA

<213> Arabidopsis thaliana

<400> 70	
cgtaggatcac agcaatacag agcc	24
<210> 71	
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<212> DNA	
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<400> 71	
cctcctgcac ttccacttcg tcttc	25
<210> 72	
<211> 20	
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<400> 72	
aaaaagatga caggatgggt	20
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<211> 20	
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<400> 73	
cccctgtttc tgtcttgta	20
<210> 74	
<211> 26	
<212> DNA	
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<400> 74	
gggatggata attcagctcc agattc	26
<210> 75	
<211> 22	
<212> DNA	
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<400> 75	
aactctaagg agctgcattt tg	22
<210> 76	
<211> 33	
<212> DNA	
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<400> 76	
gggatgagaa taaggagaag agatgaaaaa gag	33

<210> 77
 <211> 33
 <212> DNA
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<400> 77
 aaggcagtag tcaatatcac tagaagcaaa att

33

<210> 78
 <211> 33
 <212> DNA
 <213> Arabidopsis thaliana

<400> 78
 atggccgtag acatgtcttc caaacaaccc acc

33

<210> 79
 <211> 30
 <212> DNA
 <213> Arabidopsis thaliana

<400> 79
 gcagggaggt ctcgtgccgt tcttgaatag

30

<210> 80
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 80
 Leu Glu Leu Arg Leu Ala Ala Ala Ala Ala Ala
 1 5 10

<210> 81
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 81
 actagaactc cgtttggtg ccgcagcggc tgcataatga g

41

<210> 82
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 82

tcgactcatt atgcagccgc tgcggcagcc aaacggagtt ctagt

45

<210> 83

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 83

Asp Leu Glu Leu Arg Leu
1 5

<210> 84

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 84

agatctagaa ctccgtttgt aatgag

26

<210> 85

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 85

tcgactcatt acaaacggag ttctagatct

30

<210> 86

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

29

<210> 91
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 91
 tcgactcatt acaaacggag ttctagatcc agt

33

<210> 92
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 92
 Leu Asp Leu Glu Leu Ala Ala Ala Ala Ala
 1 5 10

<210> 93
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 93
 actggatcta gaactcgctg ccgcagcggc tgcataatga g

41

<210> 94
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 94
 tcgactcatt atgcagccgc tgcggcagcg agttctagat ccagt

45

<210> 95
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 95
 Leu Asp Leu Glu Leu Arg Leu Ala Ala Ala
 1 5 10

<210> 96
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 96
 actggatcta gaactccggtt tggctgccgc ataatgag

38

<210> 97
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 97
 tcgactcatt atgcggcagc caaacggagt tctagatcca gt

42

<210> 98
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 98
 Leu Glu Leu Asp Leu Ala Ala Ala Ala Ala Ala
 1 5 10

<210> 99
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 99
ccttgagctt gatcttgctg ctgctgctgc tgcttgag

38

<210> 100
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 100
tcgactcaag cagcagcagc agcagcaaga tcaagctcaa gg

42

<210> 101
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 101
Leu Asp Leu Glu Leu Arg Leu Gly
1 5

<210> 102
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 102
cctggatcta gaactccgtg gttaag

26

<210> 103
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 103
tcgacttaac cacggagttc tagatccagg

30

<210> 104
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 104
 Leu Glu Leu Arg Leu
 1 5

<210> 105
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 105
 tctagaactc cgtttgtaat gag

23

<210> 106
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 106
 tcgactcatt acaaacggag ttctaga

27

<210> 107
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 107
 Phe Asp Leu Asn Phe Ala Pro Leu Asp Cys Val
 1 5 10

<210> 108
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 108
 attcgatcctt aattttgcac cgttggattg tgtttaag

38

<210> 109
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 109
 tcgactcatt aaacacaatc caacggtgca aaattaagat cgaat

45

<210> 110
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 110
 Phe Asp Leu Asn Ile Phe Pro Pro Ile Pro Glu Phe
 1 5 10

<210> 111
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 111
 gtttgacctc aacatccctc cgatccctga attctaag

38

<210> 112
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 112
tcgacttaga attcagggat cggaggggatg ttgaggtcaa ac

42

<210> 113
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 113
Phe Gln Phe Asp Leu Asn Phe Pro Pro Leu Asp Cys Val
1 5 10

<210> 114
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 114
ctttcaattc gatcttaatt ttccaccggt ggattgtggt taag

44

<210> 115
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 115
tcgacttaaa cacaatccaa cgggtggaaaa ttaagatcga attgaaag

48

<210> 116
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 116
Asp Leu Asp Leu Arg Leu
1 5

<210> 117
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 117
 actggatcta gatctccggtt tgtaatgag

29

<210> 118
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 nucleotide sequence

<400> 118
 tcgactcatt acaaacggag atctagatcc agt

33

<210> 119
 <211> 11
 <212> PRT
 <213> Arabidopsis thaliana

<400> 119
 Asp Leu Asp Leu Glu Leu Arg Leu Gly Phe Ala
 1 5 10

<210> 120
 <211> 12
 <212> PRT
 <213> Arabidopsis thaliana

<400> 120
 Leu Asp Leu Asp Leu Glu Leu Arg Leu Gly Phe Ala
 1 5 10

<210> 121
 <211> 19
 <212> PRT
 <213> Arabidopsis thaliana

<400> 121
 Val Ser Val Trp Pro Phe Thr Leu Asp Leu Asp Leu Glu Leu Arg Leu
 1 5 10 15

Gly Phe Ala

<210> 122
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide motif

<220>
 <221> MOD_RES
 <222> (1)
 <223> Leu or Phe

<220>
 <221> MOD_RES
 <222> (5)
 <223> Leu or Phe

<220>
 <221> MOD_RES
 <222> (6)
 <223> Any amino acid

<400> 122
 Xaa Asp Leu Asn Xaa Xaa Pro
 1 5

<210> 123
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (1)..(10)
 <223> This region may encompass 0-10 variable amino
 acids

<220>
 <221> MOD_RES
 <222> (14)
 <223> Asn or Glu

<220>
 <221> MOD_RES
 <222> (16)..(21)
 <223> Any amino acid

<400> 123
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Asp Leu Xaa Leu Xaa
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa
20

<210> 124
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (1)..(10)
<223> This region may encompass 0-10 variable amino acids

<220>
<221> MOD_RES
<222> (15)
<223> Phe or Ile

<220>
<221> MOD_RES
<222> (16)..(21)
<223> Any amino acid

<400> 124
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe Asp Leu Asn Xaa Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Xaa
20

<210> 125
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (1)..(3)
<223> This region may be Leu, Asp-Leu, or Leu-Asp-Leu

<220>
<221> MOD_RES
<222> (6)
<223> Glu, Gln, or Asp

<220>
 <221> MOD_RES
 <222> (10)..(19)
 <223> This region may encompass 0-10 variable amino acids

<400> 125
 Xaa Xaa Xaa Asp Leu Xaa Leu Arg Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Xaa Xaa Xaa

<210> 126
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (3)
 <223> Glu, Gln, or Asp

<400> 126
 Asp Leu Xaa Leu Arg Leu
 1 5

<210> 127
 <211> 5
 <212> PRT
 <213> Arabidopsis thaliana

<400> 127
 Leu Asp Leu Glu Leu
 1 5

<210> 128
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (4)
 <223> Asn or Glu

<400> 128
 Leu Asp Leu Xaa Leu
 1 5

<210> 129
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (5)
 <223> Phe or Ile

<400> 129
 Phe Asp Leu Asn Xaa
 1 5

<210> 130
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (3)
 <223> Glu, Gln, or Asp

<400> 130
 Asp Leu Xaa Leu Arg Leu
 1 5

<210> 131
 <211> 615
 <212> DNA
 <213> Arabidopsis thaliana

<220>
 <221> CDS
 <222> (1)..(615)

<400> 131
 atg gag aga tca aac agc ata gag ttg agg aac agc ttc tat ggc cgt 48
 Met Glu Arg Ser Asn Ser Ile Glu Leu Arg Asn Ser Phe Tyr Gly Arg
 1 5 10 15

gca aga act tca cca tgg agc tat gga gat tat gat aat tgc caa cag	96
Ala Arg Thr Ser Pro Trp Ser Tyr Gly Asp Tyr Asp Asn Cys Gln Gln	
20 25 30	
gat cat gat tat ctt cta ggg ttt tca tgg cca cca aga tcc tac act	144
Asp His Asp Tyr Leu Leu Gly Phe Ser Trp Pro Pro Arg Ser Tyr Thr	
35 40 45	
tgc agc ttc tgc aaa agg gaa ttc aga tgc gct caa gca ctt ggt ggc	192
Cys Ser Phe Cys Lys Arg Glu Phe Arg Ser Ala Gln Ala Leu Gly Gly	
50 55 60	
cac atg aat gtt cac aga aga gac aga gca aga ctc aga tta caa cag	240
His Met Asn Val His Arg Arg Asp Arg Ala Arg Leu Arg Leu Gln Gln	
65 70 75 80	
tct cca tca tca tct tca aca cct tct cct cct tac cct aac cct aat	288
Ser Pro Ser Ser Ser Ser Thr Pro Ser Pro Pro Tyr Pro Asn Pro Asn	
85 90 95	
tac tct tac tca acc atg gca aac tct cct cct cct cat cat tct cct	336
Tyr Ser Tyr Ser Thr Met Ala Asn Ser Pro Pro Pro His His Ser Pro	
100 105 110	
cta acc cta ttt cca acc ctt tct cct cca tcc tca cca aga tat agg	384
Leu Thr Leu Phe Pro Thr Leu Ser Pro Pro Ser Ser Pro Arg Tyr Arg	
115 120 125	
gca ggt ttg atc cgt tcc ttg agc ccc aag tca aaa cat aca cca gaa	432
Ala Gly Leu Ile Arg Ser Leu Ser Pro Lys Ser Lys His Thr Pro Glu	
130 135 140	
aac gct tgt aag act aag aaa tca tct ctt tta gtg gag gct gga gag	480
Asn Ala Cys Lys Thr Lys Lys Ser Ser Leu Leu Val Glu Ala Gly Glu	
145 150 155 160	
gct aca agg ttc acc agt aaa gat gct tgc aag atc ctg agg aat gat	528
Ala Thr Arg Phe Thr Ser Lys Asp Ala Cys Lys Ile Leu Arg Asn Asp	
165 170 175	
gaa atc atc agc ttg gag ctt gag att ggt ttg att aac gaa tca gag	576
Glu Ile Ile Ser Leu Glu Leu Glu Ile Gly Leu Ile Asn Glu Ser Glu	
180 185 190	
caa gat ctg gat cta gaa ctc cgt ttg ggt ttc gct taa	615
Gln Asp Leu Asp Leu Glu Leu Arg Leu Gly Phe Ala	
195 200	

<210> 132

<211> 628

<212> PRT

<213> Arabidopsis thaliana

<400> 132

Met	Met	Phe	Asn	Glu	Met	Gly	Met	Cys	Gly	Asn	Met	Asp	Phe	Phe	Ser
1				5					10					15	
Ser	Gly	Ser	Leu	Gly	Glu	Val	Asp	Phe	Cys	Pro	Val	Pro	Gln	Ala	Glu
			20					25					30		
Pro	Asp	Ser	Ile	Val	Glu	Asp	Asp	Tyr	Thr	Asp	Asp	Glu	Ile	Asp	Val
		35					40					45			
Asp	Glu	Leu	Glu	Arg	Arg	Met	Trp	Arg	Asp	Lys	Met	Arg	Leu	Lys	Arg
	50					55					60				
Leu	Lys	Glu	Gln	Asp	Lys	Gly	Lys	Glu	Gly	Val	Asp	Ala	Ala	Lys	Gln
	65				70					75					80
Arg	Gln	Ser	Gln	Glu	Gln	Ala	Arg	Arg	Lys	Lys	Met	Ser	Arg	Ala	Gln
				85					90					95	
Asp	Gly	Ile	Leu	Lys	Tyr	Met	Leu	Lys	Met	Met	Glu	Val	Cys	Lys	Ala
			100					105					110		
Gln	Gly	Phe	Val	Tyr	Gly	Ile	Ile	Pro	Glu	Asn	Gly	Lys	Pro	Val	Thr
		115					120					125			
Gly	Ala	Ser	Asp	Asn	Leu	Arg	Glu	Trp	Trp	Lys	Asp	Lys	Val	Arg	Phe
	130					135					140				
Asp	Arg	Asn	Gly	Pro	Ala	Ala	Ile	Thr	Lys	Tyr	Gln	Ala	Glu	Asn	Asn
	145				150					155				160	
Ile	Pro	Gly	Ile	His	Glu	Gly	Asn	Asn	Pro	Ile	Gly	Pro	Thr	Pro	His
				165					170					175	
Thr	Leu	Gln	Glu	Leu	Gln	Asp	Thr	Thr	Leu	Gly	Ser	Leu	Leu	Ser	Ala
			180					185					190		
Leu	Met	Gln	His	Cys	Asp	Pro	Pro	Gln	Arg	Arg	Phe	Pro	Leu	Glu	Lys
		195					200					205			
Gly	Val	Pro	Pro	Pro	Trp	Trp	Pro	Asn	Gly	Lys	Glu	Asp	Trp	Trp	Pro
	210					215					220				
Gln	Leu	Gly	Leu	Pro	Lys	Asp	Gln	Gly	Pro	Ala	Pro	Tyr	Lys	Lys	Pro
	225				230					235					240
His	Asp	Leu	Lys	Lys	Ala	Trp	Lys	Val	Gly	Val	Leu	Thr	Ala	Val	Ile
				245					250					255	
Lys	His	Met	Phe	Pro	Asp	Ile	Ala	Lys	Ile	Arg	Lys	Leu	Val	Arg	Gln
		260						265					270		
Ser	Lys	Cys	Leu	Gln	Asp	Lys	Met	Thr	Ala	Lys	Glu	Ser	Ala	Thr	Trp
		275					280					285			
Leu	Ala	Ile	Ile	Asn	Gln	Glu	Glu	Ser	Leu	Ala	Arg	Glu	Leu	Tyr	Pro
	290					295					300				

Glu	Ser	Cys	Pro	Pro	Leu	Ser	Leu	Ser	Gly	Gly	Ser	Cys	Ser	Leu	Leu	305	310	315	320
Met	Asn	Asp	Cys	Ser	Gln	Tyr	Asp	Val	Glu	Gly	Phe	Glu	Lys	Glu	Ser	325	330	335	
His	Tyr	Glu	Val	Glu	Glu	Leu	Lys	Pro	Glu	Lys	Val	Met	Asn	Ser	Ser	340	345	350	
Asn	Phe	Gly	Met	Val	Ala	Lys	Met	His	Asp	Phe	Pro	Val	Lys	Glu	Glu	355	360	365	
Val	Pro	Ala	Gly	Asn	Ser	Glu	Phe	Met	Arg	Lys	Arg	Lys	Pro	Asn	Arg	370	375	380	
Asp	Leu	Asn	Thr	Ile	Met	Asp	Arg	Thr	Val	Phe	Thr	Cys	Glu	Asn	Leu	385	390	395	400
Gly	Cys	Ala	His	Ser	Glu	Ile	Ser	Arg	Gly	Phe	Leu	Asp	Arg	Asn	Ser	405	410	415	
Arg	Asp	Asn	His	Gln	Leu	Ala	Cys	Pro	His	Arg	Asp	Ser	Arg	Leu	Pro	420	425	430	
Tyr	Gly	Ala	Ala	Pro	Ser	Arg	Phe	His	Val	Asn	Glu	Val	Lys	Pro	Val	435	440	445	
Val	Gly	Phe	Pro	Gln	Pro	Arg	Pro	Val	Asn	Ser	Val	Ala	Gln	Pro	Ile	450	455	460	
Asp	Leu	Thr	Gly	Ile	Val	Pro	Glu	Asp	Gly	Gln	Lys	Met	Ile	Ser	Glu	465	470	475	480
Leu	Met	Ser	Met	Tyr	Asp	Arg	Asn	Val	Gln	Ser	Asn	Gln	Thr	Ser	Met	485	490	495	
Val	Met	Glu	Asn	Gln	Ser	Val	Ser	Leu	Leu	Gln	Pro	Thr	Val	His	Asn	500	505	510	
His	Gln	Glu	His	Leu	Gln	Phe	Pro	Gly	Asn	Met	Val	Glu	Gly	Ser	Phe	515	520	525	
Phe	Glu	Asp	Leu	Asn	Ile	Pro	Asn	Arg	Ala	Asn	Asn	Asn	Asn	Ser	Ser	530	535	540	
Asn	Asn	Gln	Thr	Phe	Phe	Gln	Gly	Asn	Asn	Asn	Asn	Asn	Asn	Val	Phe	545	550	555	560
Lys	Phe	Asp	Thr	Ala	Asp	His	Asn	Asn	Phe	Glu	Ala	Ala	His	Asn	Asn	565	570	575	
Asn	Asn	Asn	Ser	Ser	Gly	Asn	Arg	Phe	Gln	Leu	Val	Phe	Asp	Ser	Thr	580	585	590	
Pro	Phe	Asp	Met	Ala	Ser	Phe	Asp	Tyr	Arg	Asp	Asp	Met	Ser	Met	Pro	595	600	605	

Gly Val Val Gly Thr Met Asp Gly Met Gln Gln Lys Gln Gln Asp Val
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Ser Ile Trp Phe
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<210> 133
 <211> 225
 <212> PRT
 <213> Nicotiana tabacum

<400> 133
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 20 25 30
 Arg Pro Trp Gly Arg Tyr Ala Ala Glu Ile Arg Asp Pro Gly Lys Lys
 35 40 45
 Ser Arg Val Trp Leu Gly Thr Phe Asp Thr Ala Glu Glu Ala Ala Lys
 50 55 60
 Ala Tyr Asp Thr Ala Ala Arg Glu Phe Arg Gly Pro Lys Ala Lys Thr
 65 70 75 80
 Asn Phe Pro Ser Pro Thr Glu Asn Gln Ser Pro Ser His Ser Ser Thr
 85 90 95
 Val Glu Ser Ser Ser Gly Glu Asn Gly Val His Ala Pro Pro His Ala
 100 105 110
 Pro Leu Glu Leu Asp Leu Thr Arg Arg Leu Gly Ser Val Ala Ala Asp
 115 120 125
 Gly Gly Asp Asn Cys Arg Arg Ser Gly Glu Val Gly Tyr Pro Ile Phe
 130 135 140
 His Gln Gln Pro Thr Val Ala Val Leu Pro Asn Gly Gln Pro Val Leu
 145 150 155 160
 Leu Phe Asp Ser Leu Trp Arg Ala Gly Val Val Asn Arg Pro Gln Pro
 165 170 175
 Tyr His Val Thr Pro Met Gly Phe Asn Gly Val Asn Ala Gly Val Gly
 180 185 190
 Pro Thr Val Ser Asp Ser Ser Ser Ala Val Glu Glu Asn Gln Tyr Asp
 195 200 205
 Gly Lys Arg Gly Ile Asp Leu Asp Leu Asn Leu Ala Pro Pro Met Glu
 210 215 220

Phe
225

<210> 134
<211> 310
<212> PRT
<213> Arabidopsis thaliana

<400> 134

Met	Asp	Val	Asp	Val	Phe	Asn	Gly	Trp	Gly	Arg	Pro	Arg	Phe	Glu	Asp
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Glu	Ser	Leu	Met	Pro	Pro	Gly	Phe	Arg	Phe	His	Pro	Thr	Asp	Glu	Glu
			20					25					30		
Leu	Ile	Thr	Tyr	Tyr	Leu	Leu	Lys	Lys	Val	Leu	Asp	Ser	Asn	Phe	Ser
		35					40					45			
Cys	Ala	Ala	Ile	Ser	Gln	Val	Asp	Leu	Asn	Lys	Ser	Glu	Pro	Trp	Glu
	50					55					60				
Leu	Pro	Glu	Lys	Ala	Lys	Met	Gly	Glu	Lys	Glu	Trp	Tyr	Phe	Phe	Thr
	65				70					75					80
Leu	Arg	Asp	Arg	Lys	Tyr	Pro	Thr	Gly	Leu	Arg	Thr	Asn	Arg	Ala	Thr
				85					90					95	
Glu	Ala	Gly	Tyr	Trp	Lys	Ala	Thr	Gly	Lys	Asp	Arg	Glu	Ile	Lys	Ser
			100					105					110		
Ser	Lys	Thr	Lys	Ser	Leu	Leu	Gly	Met	Lys	Lys	Thr	Leu	Val	Phe	Tyr
		115					120					125			
Lys	Gly	Arg	Ala	Pro	Lys	Gly	Glu	Lys	Ser	Cys	Trp	Val	Met	His	Glu
	130					135					140				
Tyr	Arg	Leu	Asp	Gly	Lys	Phe	Ser	Tyr	His	Tyr	Ile	Ser	Ser	Ser	Ala
	145				150					155					160
Lys	Asp	Glu	Trp	Val	Leu	Cys	Lys	Val	Cys	Leu	Lys	Ser	Gly	Val	Val
				165					170					175	
Ser	Arg	Glu	Thr	Asn	Leu	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ala	Val	Thr
			180					185					190		
Gly	Glu	Phe	Ser	Ser	Ala	Gly	Ser	Ala	Ile	Ala	Pro	Ile	Ile	Asn	Thr
		195					200					205			
Phe	Ala	Thr	Glu	His	Val	Ser	Cys	Phe	Ser	Asn	Asn	Ser	Ala	Ala	His
	210					215					220				
Thr	Asp	Ala	Ser	Phe	His	Thr	Phe	Leu	Pro	Ala	Pro	Pro	Pro	Ser	Leu
	225				230					235					240
Pro	Pro	Arg	Gln	Pro	Arg	His	Val	Gly	Asp	Gly	Val	Ala	Phe	Gly	Gln
				245					250					255	

Phe Leu Asp Leu Gly Ser Ser Gly Gln Ile Asp Phe Asp Ala Ala Ala
260 265 270

Ala Ala Phe Phe Pro Asn Leu Pro Ser Leu Pro Pro Thr Val Leu Pro
275 280 285

Pro Pro Pro Ser Phe Ala Met Tyr Gly Gly Gly Ser Pro Ala Val Ser
290 295 300

Val Trp Pro Phe Thr Leu
305 310

<210> 135

<211> 248

<212> PRT

<213> Arabidopsis thaliana

<400> 135

Met Glu Gly Ser Ser Lys Gly Leu Arg Lys Gly Ala Trp Thr Thr Glu
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Glu Asp Ser Leu Leu Arg Gln Cys Ile Asn Lys Tyr Gly Glu Gly Lys
20 25 30

Trp His Gln Val Pro Val Arg Ala Gly Leu Asn Arg Cys Arg Lys Ser
35 40 45

Cys Arg Leu Arg Trp Leu Asn Tyr Leu Lys Pro Ser Ile Lys Arg Gly
50 55 60

Lys Leu Ser Ser Asp Glu Val Asp Leu Leu Leu Arg Leu His Arg Leu
65 70 75 80

Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu Pro Gly Arg Thr
85 90 95

Ala Asn Asp Val Lys Asn Tyr Trp Asn Thr His Leu Ser Lys Lys His
100 105 110

Glu Pro Cys Cys Lys Ile Lys Met Lys Lys Arg Asp Ile Thr Pro Ile
115 120 125

Pro Thr Thr Pro Ala Leu Lys Asn Asn Val Tyr Lys Pro Arg Pro Arg
130 135 140

Ser Phe Thr Val Asn Asn Asp Cys Asn His Leu Asn Ala Pro Pro Lys
145 150 155 160

Val Asp Val Asn Pro Pro Cys Leu Gly Leu Asn Ile Asn Asn Val Cys
165 170 175

Asp Asn Ser Ile Ile Tyr Asn Lys Asp Lys Lys Lys Asp Gln Leu Val
180 185 190

Asn Asn Leu Ile Asp Gly Asp Asn Met Trp Leu Glu Lys Phe Leu Glu
 195 200 205

Glu Ser Gln Glu Val Asp Ile Leu Val Pro Glu Ala Thr Thr Thr Glu
 210 215 220

Lys Gly Asp Thr Leu Ala Phe Asp Val Asp Gln Leu Trp Ser Leu Phe
 225 230 235 240

Asp Gly Glu Thr Val Lys Phe Asp
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<210> 136
 <211> 219
 <212> PRT
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<400> 136
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Trp Thr Val Glu Glu Asp Lys Ile Leu Met Asp Tyr Val Arg Thr His
 20 25 30

Gly Gln Gly His Trp Asn Arg Ile Ala Lys Lys Thr Gly Leu Lys Arg
 35 40 45

Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Ser Pro Asn
 50 55 60

Val Asn Arg Gly Asn Phe Thr Asp Gln Glu Glu Asp Leu Ile Ile Arg
 65 70 75 80

Leu His Lys Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Lys Arg Val
 85 90 95

Pro Gly Arg Thr Asp Asn Gln Val Lys Asn Tyr Trp Asn Thr His Leu
 100 105 110

Ser Lys Lys Leu Gly Leu Gly Asp His Ser Thr Ala Val Lys Ala Ala
 115 120 125

Cys Gly Val Glu Ser Pro Pro Ser Met Ala Leu Ile Thr Thr Thr Ser
 130 135 140

Ser Ser His Gln Glu Ile Ser Gly Gly Lys Asn Ser Thr Leu Arg Phe
 145 150 155 160

Asp Thr Leu Val Asp Glu Ser Lys Leu Lys Pro Lys Ser Lys Leu Val
 165 170 175

His Ala Thr Pro Thr Asp Val Glu Val Ala Ala Thr Val Pro Asn Leu
 180 185 190

Phe Asp Thr Phe Trp Val Leu Glu Asp Asp Phe Glu Leu Ser Ser Leu
 195 200 205

Thr Met Met Asp Phe Thr Asn Gly Tyr Cys Leu
210 215